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ABSTRACT

Comparative analysis of educational planning in Pakistan and the United States illustrates the potential of educational planning and the one-sided approach to planning practiced in America. In Pakistan, the centralized government coordinates all planning activities, and educational planning is only one part of an integrated planning program for political, social, and economic needs. In the United States, planning is diffused and fragmented throughout Federal and local governments. In the U.S., little attention is given to longrange planning, and efforts are concentrated in financial accounting. Proper planning in the United States must concern itself with qualitative improvement rather than quantitative expansion. (RA)

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HOW THE AMERICAN EDUCATION SYSTEM LOOKS FROM THE STANDPOINT OF SYSTEMATIC PLANNING

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To describe educational planning in the United States in a straight-forward way is difficult, because the centers of activity are exceedingly numerous and diverse. What I propose is an indirect approach to the topic: let us see how what we do looks in comparison with what is done abroad. The model of comparison is Pakistan. One reason I choose Pakistan is personal, for I had the opportunity to work for two years in its Central Planning Commission. The second reason is more important: Pakistan has had a commitment to systematic planning probably unmatched outside the socialist world. As a bonus for present purposes, it is a country, furthermore, in which governmental power is centralized to a degree much greater than usual-again speaking of countries outside the socialist bloc. Centralization of power allows us to see the processes of planning more clearly than in a country - like India, say - where power is shared by large numbers of different governmental units. During the period of reference, there were in Pakistan a central government and two provincial, with the central

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holding main control of public revenue. That was all there was of the governments that were directly concerned with planning.

The Main Features of the Planning Apparatus

I do not mean to imply, nevertheless, that planning processes in Pakistan are unique. The main features I shall sketch are characteristic of planning in other Asian countries, including India, and in some European countries, such as France. What, then, are these main features of the planning process?

(1) Educational planning occurs in a governmental body which is powerful and which is concerned with all main programs of economic and social projection. Educational planning is serious and purposeful; it is integrated as a process into planning of all other major activities in the country over which the government exerts influence; and it is forward looking, by which one means that examination of past experience - what we call evaluation- serves only to inform what can be accomplished in what period of time, given the resources available. Consider power, without which no planner can expect to be taken seriously. The Chairman of the Central Planning Commission is the President. The Deputy Chairman traditionally has been chief economic adviser to the President. The Central Planning Commission traditionally has held power as a department roughly equal to that of the Ministry of Finance. In the provincial government, likewise, planning departments have held powers in actuality that are superior to substantive departments, such as Agriculture, Industries,

Health, and Education. Consider next the integrated nature of planning. In the Central Commission, and in the provincial planning departments as well, the same governmental body that prepares education plans also is concerned with agriculture, irrigation and potable water supply, manufacturing production, fuels and minerals, electric power, transport and communications, housing, health, and family planning. Developmental programs in all fields must be financed, of course, and this leads planning bodies to be deeply concerned about the supply of domestic savings and the balance of payments and external resources. Recent innovations in planning are setting of targets for consumption, as well as production, and establishment of targets for improvement of income distribution.

(2) Educational planning, as already noted, seeks to project the future. The main effort is toward the preparation of five-year plans, though these exist in a perspective of a twenty-year plan. Preparation of both lays before the education planner the same question (though obviously with regard to a different time horizon): what shall the size and quality of given educational programs be in twenty (or five) years from now. In answering this question, one must take account of the realities - political, social, and economic. But a planner must be optimistic about the capacity of his country to do good things; otherwise, he is of no help. As J. P. Naik, the distinguished Indian education planner said, " . . . the test of a real 'plan' is that its programme cannot

be implemented under 'natural' circumstances and it is only the support provided by the planning mechanism that pulls it through."[1]

(3) Setting targets is in relation to uses of education. Not always, of course, and not too strictly. For example, while a planning commission might take the position that the target of universal primary education requires no economic justification, it will almost surely regulate the number of places in engineering universities and colleges by the projected demand for new engineers to private industry and government.[2] No matter that forecasting of manpower requirements is seriously flawed as a scientific exercise, the planning process definitely and clearly pays heed to the needs of the country for given numbers of people with given kinds of training. The main criterion of need is contribution to economic growth.

Now, as indicated, the criterion is not applied with complete strictness. It is accepted that programs in arts colleges offer little to students that has real value in the marketplace and, further, that it is politically hazardous to restrict the number of places in arts colleges to the likely number of jobs for new college graduates. (Eventually, most college graduates do find a position deemed worthy of their status, but this is because a person in Asia accumulates a kind of seniority in the market whether he is working or not; immediately after graduation, however, many persons experience some months or years of unemployment.) Here, then, we have a different kind of task for the education planner: to propose changes in employment and social policy that the social cost of overproduction of large numbers of generally-

trained college graduates is minimized. Perhaps because their ideas of social justice are overdeveloped, Western advisers in Asia are likely to find this part of the game discouraging.

(4) Planning is more than making projections and setting targets; it is also a process of control and monitoring. Local and regional education authorities must have in hand approved schemes before they can spend any development money. It is the provincial (first) and central (second) planning bodies that grant such approval. Schemes must be shown to contribute to fulfillment of plan targets, on the one hand, and they must be acceptable in terms of cost-effectiveness, on the other.

It should now be clear that planning does not involve telling provincial and other education departments how they are to meet plan targets. Good planning is flexible in the sense that the means to reach goals is regulated by local conditions. Approval of schemes is essentially a prudential function, in that one sees that resources are not wasted - either by being spent on unwise projects (outside plan targets) or in unwise ways (not cost-effective). But plans can go awry in another direction, namely, that not enough is done fast enough by the executing authorities. For example, programs of construction of educational facilities might fall behind schedule. Hence, there is a second part to the central and monitoring operation, namely, preparation and review of annual plans. These plans divide the five-year plan targets in manageable chunks for implementation. If any parts of the five-year

program are seriously behind schedule, they can be easily notched up through review of annual plan accomplishments and guidance given to executing authorities to accelerate the level of activity in those specific programs.

(5) Increasingly, planning in the social sector, which, of course, includes education, is making use of computer based planning models. One example is a "student-flow model," a device for projecting resource commitments under alternative approaches to quantitative extension of services or to qualitative improvement. Given the estimated numbers of school or college age youth in the years ahead, one can examine the probable cost of attaining universal primary education, and later, universal secondary education, with attention, say, to the cost-saving effect of double shifts as against the cost-increasing effects of reducing class size, providing specialized high school programs, etc. The availability of such planning models raises the debate about policy alternatives to discussion of true issues. It reduces the (sometimes acrimonious) disputes about what the pertinent numbers actually may be.

It is sometimes held that quality of data is too poor to allow use of simulation models in planning. My colleagues and I at Berkeley feel this attitude is quite wrong. It is the delight of the computer that alternative estimates based on alternative assumptions about values of key coefficients can be easily and quickly prepared, once the basic model is ready for use. Suppose, for example, that a coefficient

representing drop-out rates is in dispute. Then try several different values! Often, the substitution of one value for another can be seen to make little difference in any projections except the shortest run. Where the contrary is the case, one can at least obtain a range within which the true estimates are likely to fall, and frequently such ranges can serve adequately for planning purposes. Moreover, availability of a computerized model is a help in showing what kinds of data are most urgently needed for planning. The fact that planning authorities are seen to use data is likely to stimulate statistical officers to be more careful in collection and preparation of their figures.

A second type of planning model coming into use is a network model in which the times and costs of completing sub-tasks of a major implementation program are cast in probability terms. Suppose government decides to embark on a program of modernizing secondary education. This implies that a definition of modernization be established for different parts of the country, that inventories of teacher talent and school facilities be made, that new programs of teacher training be launched and physical construction carried out, that willingness of students to attend new types of institutions be assessed, etc. Many of these "jobs" cannot be well started until others have been completed. The network model forces one to think about stages of implementation; it provides an estimate of the cost of implementation; and it allows the authorities to monitor the course of implementation. The latter, needless to say, is a crucially important feature.

Planning, including social sector planning, is a rational activity. It is interesting to note that in Pakistan, where the very birth of the country was a religious event and where religious observance impinges on every few hours of the life of the common man, the atmosphere of the Central Planning Commission is - for better or worse - wholly secular.

(6) Educational planning is performed by a team of specialists. Included are demographers - to project numbers of school age children; cost accountants - to estimate necessary expenditures at different educational levels in different parts of the country; examination specialists - to interpret figures on test results (these being one measure of educational output); education specialists - to estimate household demand for educational services, along with drop-out and repetition rates; manpower analysts - to estimate requirements for newly-trained persons in various lines of economic activity. During my stay in Pakistan, persons trained in operations research and management science were added to the team. Neither an architect nor a survey researcher was included, though both should have been. The matter of having a curriculum specialist is somewhat more complicated. On the contrary side of the argument, it can be stated that curriculum specialists resist choosing a single course of action, stating instead that several different approaches are available to teach anything, yet planning implies that a single, definite course of action is postulated; and, further and along the same line, that consideration in detail of curriculum questions

places a planning body too far into the position of telling an executing agency how to meet the targets which are given it. I, for one, however, think that planning teams would be strengthened if they included a curriculum specialist.

How Well Does It Work?

Not very well, in my opinion, but well enough to be worth the effort. Here are some shortcomings. (1) The global allocation of funds to the education sector is determined on a rule-of-thumb basis. It is possible to receive guidance on that allocation from a planning model that recognizes the complementarity of physical capital and different kinds of trained manpower in the economic growth process. (2) As an example of an even less excusable shortcoming in an integrated planning program, the fact that planning of different kinds of social sector activities - health, housing, welfare, rural development, as well as education - occurs all within one central planning commission does not assure that cooperation among sections of the commission exists; indeed, there is a general failure to recognize complementarities among these kinds of services.[3] (3) As we have already noted, even those guides that are available from manpower analysts are not taken very closely into account in establishing educational targets. (4) Cost analysis is weak. Average, rather than marginal, cost estimates are used universally. The nexus between cost and quality is simply unexplored.

The relation between costs incurred and benefits received is not developed very thoroughly. Granted that it is difficult to assess social costs and benefits, it is eminently feasible to prepare "within-the-ball-park" estimates of what households of different income levels spend on educational services (private costs) and what measure of private benefits they receive. That link is not made. Thus, the educational planning activities do not produce an explicit concern with equity and social justice, except in broad, propagandistic terms. (5) The control and monitoring system is much more effective in denying expenditure on bad projects than it is in seeing that five-year plan targets are going to be met. Central and provincial planning departments regularly deplore failures in implementation but they do little to help provincial officers of administration develop management systems to see that an adequate number of projects are started at appropriate times in the planning period. (6) As a special and grievous case of lack of control, the central planning authorities feel they are impotent to moderate the bounding proliferation of privately-administered high schools and arts colleges, most of which operate at low standards of quality. These institutions are substantially responsible, one way or another, for the phenonomenon of educated unemployment. At a Ford Foundation meeting in Singapore last October, I was led to say that the foreign educational adviser becomes inexorably (and no matter what his intentions) a handmaiden of the entrenched ruling classes.[4] I still feel this way.

In the light of imperfections noted in the planning process, is planning worthwhile? I feel it is, especially in the developing nations where waste of resources is such an extremely distressing thing. Planning, I believe, remains the best hope for building a more functional system of education, because the process of planning, whatever the deficiencies in actual practice, remains a basically rational activity. It is a means of keeping targets for extension of educational services constantly before the government. Planning requires data, and the accumulating of data reveal to all interested persons the shortfalls in educational provision, shortfalls that might otherwise be hidden from view. These kinds of pressures on government are needed, because education, an activity that provides benefits in the long-run, competes for resources with activities that produce results in the short-run, such as investment in factories, highways, tube wells for land reclamation, etc. Lastly, membership in a Planning Commission allows access to the highest levels of governmental power, which is to say that a forum is established in which new ideas about education can be laid directly before those who hold the reins of economic power.

A Comparative View of Educational Planning in the United States

To this point we have been taking a look at the nature of planning, warts and all, in a country, Pakistan, that has been cited frequently as a model of economic rationality. We must now turn our eyes inward

and ask what is done by way of educational planning in the United States. I do not pretend to give a complete or detailed picture, and, even so, what I say may be the subject of disagreement.

Let us start with the federal government. It cannot be denied that decision-making about education is fragmented. Proposals about educational programs may arise in the Executive Offices, in various bureaus of HEW, in the Office of Education, in the Labor Department (with respect to manpower training), in NSF (for research funding in universities), in the Agriculture Department (for agricultural extension programs) and so on.

Time horizons are seldom made explicit. That is, it is not stated what is to be accomplished by what date. Avoidance of the time standard makes discussion of long- and middle-term goals in education disheartningly vague. It also is consistent with arbitrary cut-offs of funds from programs which may just be beginning to show results.

As nearly as I can tell and except possibly in the defense and space services, there is little attempt to regulate the size of educational programs in terms of requirements for graduates. For example, in discussing the market for Ph.D's Allan Cartter has recently stated, ". . . we have created a graduate education and research establishment in American universities that is about 30-50% larger than we shall effectively use in the 1970's and early 1980's and the growth process

continues in many sectors."[5] For many years there was a chronic over-supply of secondary social studies teachers and an undersupply of mathematics teachers. I cite the latter example to show that our governments have not practiced manpower planning even with respect to one major program, e.g., public education, that they themselves administer.

With regard to control and monitoring at the federal level, OE exercises a certain amount of power to grant and withhold funds on the basis of scheme approval and OMB gives spending proposals as rigorous scrutiny as data and indefiniteness of targets allows. There is, however, no formal process of devising annual plans within a framework of five-year plans and assessing expenditures in the coming annual plan on the basis of known shortfalls and overfulfillments in the last. Control and monitoring is highly ad hoc in terms of the procedures applied toward programs in the various education acts.

Little use is made of education planning models at the federal level. A proper student flow model would have surely advised us some years ago of the approximate date and magnitude of our present teacher surplus. When such events are forecast clearly and definitely, they are likely to stimulate thinking about policy alternatives. It would have been good if states and local authorities had planned ahead to use the slack in the teachers' market to send experienced teachers off on sabbaticals for retraining.

Next, let us think about ESEA. The Act represents a major change in American educational thinking. Before ESEA, we had assumed that the right goal was to equalize the inputs of educational resources in schools and that as this was accomplished, talent known to be available in all of the social classes would rise. Equality of inputs, that is, would produce roughly equal distributions of educational outputs in each class taken separately. ESEA denied the assumption and said that " . . . concentrations of children from low-income families . . . " produce in and of themselves requirements to spend extra resources to allow talent to rise from the poverty classes. The problem is not with the idea but with the execution. Money is a necessary condition for educational progress but not a sufficient condition. What was needed was knowledge (however crude) applied on the questions of what special talents of teachers and other instructional staff were required to overcome the educationai disadvantages of poverty, of how those persons could be found (or trained) and induced to work in inner-city schools, of what special facilities were useful and how they could be provided, of what time period was necessary to accumulate these special resources in a critical mass and get them delivered to students from poor households, of what geographic priorities exist, if any, of what post-school opportunities (college, etc.) should be provided for the generation of poverty students who would have had the benefit of the new programs, etc. A network model would have been helpful

in thinking about these questions and in establishing the ordering over time of the various sub-tasks or "jobs."

Lastly, I would observe that I see no special cadre of educational planners in place in the federal government. Some people work in educational planning but I doubt that they have had special training for the assignment or that they see educational planning as a career in the same sense that they do educational administration.

What of educational planning activities in our state and local governments. My strong feeling is that state governments have abdicated their responsibilities in planning (though, oddly enough, not in finance) by choosing to leave it up to the local authorities, colleges, and universities to arrange the details of resource commitments and to do this in the absence of mutually-agreed-upon targets of educational outputs.

In elementary and secondary education, even, it is the local authorities who themselves decide upon the magnitude of resource commitments in their programs overall. By avoiding making close decisions on what educational resources should be used in which schools, the state governments place responsibility for planning on local authorities. The larger ones do a considerable amount, particularly on the side of physical facility planning. However, even in the case of big cities, the unit of government is too small to carry the

whole load of comprehensive planning. There is not sufficient control of the supply of resources, especially with regard to quality of resources, there is insufficient means to control opportunities for the end uses of education, and there is insufficient access to data and analysis.

The problem can be seen in the deliberations of the New York State Commission on the Quality, Cost, and Financing of Elementary and Secondary Education. The Commission is being urged simultaneously to centralize finance at the state level (full state funding) and to decentralize decision making about school programs into very small attendance areas - possibly districts of size of one high school and its feeder elementary schools. I am not at all certain that the Commission will recommend full state funding and, concomitantly, such decentralization of program authority, but if it did so recommend both together, it would be saying to the state government, " you can no longer finesse the question of what resources should be consumed in schools of notably different student characteristics."

Speaking of education commissions, do these bodies serve the planning function and do they serve it adequately? Yes to the first question and no to the second. Plainly, commissions fill the role of laying down long-run (but often highly generalized) objectives and of suggesting certain major kinds of administrative changes. However,

they cannot fill the bill in terms of providing a comprehensive planning operation. Why? Commissions do not have sufficient access to the ". . . corridors of power." In early 1968, the California State Committee on Public Education brought to the attention of the state government the prospect that a downturn in the aerospace industry would soon produce considerable unemployment of scientists and technicians. The state has not yet taken serious action to see that these highly-trained individuals be provided opportunities to use their skills in socially beneficial ways. Next, commissions have not a long enough life to perform the control and monitoring functions, that is, to see that new programs are well implemented. Next and last, commissions do not have a long enough life to justify the construction and use of the more advanced types of computerized planning models.

If It is True We Have Not Much Educational Planning, Then Why?

If other nations find it desirable to engage in formal, integrated kinds of educational planning at the highest levels of government, how is it that we get along while appearing to do so little of it? There are several answers.

(1) We are rich and therefore more willing to take chances in the spending of money in relatively unplanned and unmonitored ways.

(2) Our educational services are more broadly extended than are those in other countries. Disparities in income distribution are somewhat less distressingly visible. For these reasons, and though

even in our case quality of educational services received is the key to unlock the door to opportunity, the opportunity range in the United States is not glaringly wide (as, for example, great affluence vs. animal-like squalor). Hence, we have somewhat less concern about the distribution of personal rewards that the sorting function of our education system yields.

(3) In the United States, both employers and employees hold relatively flexible attitudes toward the necessary and proper fit between a person's education and the job he holds; hence, we have managed - up till now, at least - to avoid serious problems of educated unemployment. For better or worse, our practice is to upgrade jobs (in terms of educational requirements) in accordance with the supply of educated people. An imbalance between jobs and training - a phenomenon which is a stimulus toward stronger efforts in educational planning abroad - is unlikely to become so noticeable in our case.

(4) We have a blind faith in evaluation as a total substitute for a more complete set of planning activities. Recall Senator Robert Kennedy's plea to Commissioner Keppel in the Senate Hearings on ESEA: "I think it is very difficult for a person who lives in a community to know whether, in fact, his educational system is what it should be . . . I wonder if we couldn't just have some kind of system of reporting (so that) the people at the local community would know periodically as

to what progress had been made under this program."[6] The bill was modified to include procedures for annual reporting on the basis of quantitative measures. But control and monitoring is only one part of the educational planning process. Senator Kennedy could just as well have asked what output targets had been selected, what the time horizons were for meeting the targets, what programs had been devised to obtain the required kinds of teaching services and to assure their proper distribution into affected schools, what incentives were to be laid before professional staff and students to meet targets on time, etc. Instead, we settle for one thing: relatively simple ex post measures of performance.

Some Considerations If We Wish to Embark on More Comprehensive Modes of Educational Planning

As an early consideration, we would need to develop a cadre of planners. It is better to minimize formal planning activities than to suffer from bad planning. Hence, such a cadre must be carefully selected and well trained.

It seems to me that there are two main approaches. At the Ontario Institute for Studies in Education, a largely self-contained program exists in the Department of Educational Planning. Two kinds of master's degrees and the Ph.D are offered. Students take courses from a large faculty, some 45-50 in number, in the subjects of manpower requirements, quantitative models, financial projections, demography, etc. This is all within the given department. The approach appears to assume that there is a discipline of educational planning.

At Berkeley, on the other hand, we assume that educational planning is an activity best performed by a team of specialists drawn together by their interest in a common problem. Such a team of educational planners might include a specialist in model building, one in economics and finance, one in labor market analysis, another in survey research, another in physical planning and architecture, and yet another in curriculum. We base our plan of instruction on this concept of specialization.

Take the case, for instance, of a Statistical Officer, Provincial Bureau of Education, in Lahore, who has come to Berkeley for one year. Among several possible specialities in a Statistics Office, his job is to project population trends. He needs not only to know how to analyze population data but to produce tables for his own use. In addition to work in education and statistics, we would arrange substantial coursework in the Department of Demography. By informal and cooperative means, we would try to lay before him the best instruction that the whole Demography Department had to offer him. We see this as surely more promising than having all or most of the work in his field taught him by, say, a few demographers who happened to be working in the School of Education.

It is reasonable to ask, then, why students in educational planning who come to us from overseas take their degrees in the School of Education rather than in the departments of their specialties. Part of the answer is simply that at Berkeley the Departments of those specialties

are comfortable in awarding doctorates only to very scholarly types for whom one can well anticipate a career in research. For people who are drawn into educational planning as a process in government, the career objective in the majority of cases must be quite different -- it is to be, after all, a practitioner in devising and testing public policy.

Naturally, we would expect that some faculty from the departments that make up the specialties of educational planning would serve as members of our students' dissertation committees. The chairman, however, would most likely be one of our School and Division. The aim is to see if we can develop in the student an unusual amount of knowledge in how to use one of the social science disciplines in attacking public policy issues while not demanding that he devote roughly the first half of his life to acquiring (possibly narrow) standards of competence in research that are acceptable in the major universities of the western world. Our approach is to maintain sponsorship of the degree work in the professional school while moving the student progressively toward a full-time course load in the department of his planning specialty.

A second point, should we wish to become serious about educational planning is this. In the United States planning must concern itself with qualitative improvement much more than (as in many countries overseas) quantitative expansion. Planning for qualitative improvement is difficult, in part because successful implementation of programs frequently calls for a change in values. Two examples. Suppose it is decided that the American educational system has become "top-heavy," meaning that in

relative terms, too many resources are laid on secondary education as compared with primary years of schooling and too much attention is given to graduate and upper division courses of our universities and too little to courses for freshmen and sophomores. To right this kind of imbalance requires that faculties accept a new reward structure, and indeed, in the universities at least, a new way of life. The other example is the following: suppose it is decided that many youth in their late teens should participate in schemes of state service or in work experience programs, for from such programs it is anticipated that commitment of students to learning will be enhanced. This would require that parental attitudes toward social projects and manual work become more favorable.

Now we come to the third and last point about our commitment. If we were to become more serious about educational planning, we would need to broaden the conventional definition of the uses of education. In our case -- much more than in the developing nations -- the uses of education are to be found less in work and more in cultural, aesthetic, and recreational fields. We may be not far from that time when a man will be known less by his occupation than by his prowess in cultural, and yes, athletic, pursuits. So we need to see targets as existing not just in terms of providing ourselves with the right number of doctors, engineers, etc., but as opportunities for us as a nation to become able to enjoy our remarkable investments in cultural and recreational pursuits.

Footnotes

1. Quoted in Mark Blaug, Richard Layard, and Maureen Woodhall, The Causes of Graduate Unemployment in India. London, Allen Lane, The Penguin Press, 1969, p. 55.

2. One may wonder, of course, if this reflects attachment to planning goals and methods or if it comes about in response to a (well-grounded) fear that standards of engineering training might fall, should the training institutions become over-crowded. This is surely seen as a greater danger to the economic growth of the country than collapse, say, of standards in arts colleges. A similar argument, but more strictly applied to the physical well-being of the upper classes, might explain the close control that is exercised over admission to medical colleges.

3. For example, education strengthens efforts in family planning. In the long run, the converse would also apply.

4. Charles S. Benson, "Planning and Control of Education and Training Services," Ford Foundation (unpublished), 1970.

5. Allan M. Cartter, "Scientific Manpower Trends for 1970-1985, and Their Implications for Higher Education," a paper read at the annual meeting of the Association for the Advancement of Science, Chicago, December 27, 1970 (mimeo), p. 2.

6. U.S. Congress, "Elementary and Secondary Education Act of 1965," Hearings Before the Subcommittee on Education of the Committee on Labor and Public Welfare, 89th Congress, 1st Session, Part 1, Washington, D.C., Government Printing Office, 1965, p. 514.